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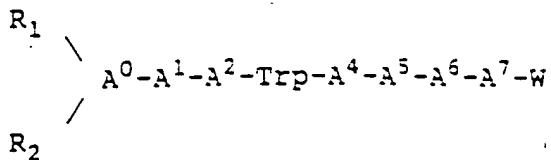
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1. A therapeutic peptide comprising between seven and ten amino acid residues, inclusive, said peptide being an analog of one of the following naturally occurring peptides terminating at the carboxy-terminus with a Met residue: (a) litorin; (b) the ten amino acid carboxy-terminal region of mammalian gastrin releasing peptide; and (c) the ten amino acid carboxy-terminal region of amphibian bombesin; said therapeutic peptide being of the formula:



wherein

$A^0$  = Gly, Nle,  $\alpha$ -aminobutyric acid, or the D-isomer of any of Ala, Val, Gln, Asn, Leu, Ile, Met, p-X-Phe (where X = F, Cl, Br,  $\text{NO}_2$ , OH, H or  $\text{CH}_3$ ), Trp, Cys, or  $\beta$ -Nal, or is deleted;

$A^1$  = the D or L-isomer of any of pGlu, Nle, or  $\alpha$ -aminobutyric acid, or the D-isomer of any of Ala, Val, Gln, Asn, Leu, Ile, Met, p-X-Phe (where X = F, Cl, Br,  $\text{NO}_2$ , OH, H or  $\text{CH}_3$ ), F<sub>5</sub>-Phe, Trp, Cys, or  $\beta$ -Nal, or is deleted;

$A^2$  = pGlu, Gly, Ala, Val, Gln, Asn, Leu, Ile, Met, p-X-Phe (where X = F, Cl, Br,  $\text{NO}_2$ , OH, H or  $\text{CH}_3$ ), Trp, Cys,  $\beta$ -Nal, His, 1-methyl-His, or 3-methyl-His;

$A^4$  = Ala, Val, Gln, Asn, Gly, Leu, Ile, Nle,  $\alpha$ -aminobutyric acid, Met, p-X-Phe (where X = F, Cl, Br,  $\text{NO}_2$ , OH, H or  $\text{CH}_3$ ), Trp, Cys, or  $\beta$ -Nal;

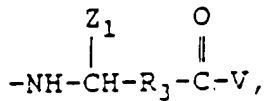
A<sup>5</sup> = Gln, Asn, Gly, Ala, Leu, Ile, Nle,  $\alpha$ -aminobutyric acid, Met, Val, p-X-Phe (where X = F, Cl, Br, OH, H or CH<sub>3</sub>), Trp, Thr, or  $\beta$ -Nal;

A<sup>6</sup> = Sar, Gly, or the D-isomer of any of Ala, N-methyl-Ala, Val, Gln, Asn, Leu, Ile, Met, p-X-Phe (where X = F, Cl, Br, NO<sub>2</sub>, OH, H or CH<sub>3</sub>), Trp, Cys, or  $\beta$ -Nal;

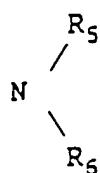
A<sup>7</sup> = 1-methyl-His, 3-methyl-His, or His;

provided that, if A<sup>0</sup> is present, A<sup>1</sup> cannot be pGlu; further provided that, if A<sup>0</sup> or A<sup>1</sup> is present, A<sup>2</sup> cannot be pGlu; further provided that, when A<sup>0</sup> is deleted and A<sup>1</sup> is pGlu, R<sub>1</sub> must be H and R<sub>2</sub> must be the portion of Glu that forms the imine ring in pGlu; and further provided that, W can be any one of the following:

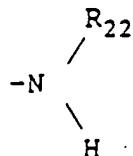
(I):



wherein R<sub>3</sub> is CHR<sub>20</sub>-(CH<sub>2</sub>)<sub>n1</sub> (where R<sub>20</sub> is either of H or OH; and n1 is either of 1 or 0), or is deleted, and z<sub>1</sub> is the identifying group of any of the amino acids Gly, Ala, Val, Leu, Ile, Ser, Asp, Asn, Glu, Gln, p-X-Phe (where X = H, F, Cl, Br, NO<sub>2</sub>, OH, or CH<sub>3</sub>), F<sub>5</sub>-Phe, Trp, Cys, Met, Pro, HyPro, cyclohexyl-Ala, or  $\beta$ -Nal; and V is either OR<sub>4</sub>, or

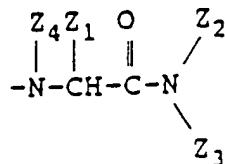


where  $R_4$  is any of  $C_{1-20}$  alkyl,  $C_{3-20}$  alkenyl,  $C_{3-20}$  alkynyl, phenyl, naphthyl, or  $C_{7-10}$  phenylalkyl, and each  $R_5$ , and  $R_6$ , independently, is any of H,  $C_{1-12}$  alkyl,  $C_{7-10}$  phenylalkyl, lower acyl, or,



where  $R_{22}$  is any of H,  $C_{1-12}$  alkyl,  $C_{7-10}$  phenylalkyl, or lower acyl; provided that, when one of  $R_5$  or  $R_6$  is  $-NHR_{22}$ , the other is H;

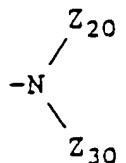
(II):



wherein  $Z_1$  is the identifying group of any one of the amino acids Gly, Ala, Val, Leu, Ile, Ser, Asp, Asn, Glu,  $\beta$ -Nal, Gln, p-X-Phe

(wherein X = H, F, Cl, Br, NO<sub>2</sub>, OH or CH<sub>3</sub>), F<sub>5</sub>-Phe, Trp, Cys, Met, Pro, or HyPro; and each Z<sub>2</sub>, Z<sub>3</sub>, and Z<sub>4</sub>, independently, is H, lower alkyl, lower phenylalkyl, or lower naphthylalkyl; or

(III):



wherein each Z<sub>20</sub> and Z<sub>30</sub>, independently, is H, lower alkyl, lower phenylalkyl, lower naphthylalkyl; further provided that, when either of Z<sub>20</sub> or Z<sub>30</sub> is other than H, A<sup>7</sup> is His, A<sup>6</sup> is Gly, A<sup>5</sup> is Val, A<sup>4</sup> is Ala, A<sup>2</sup> is His, and either of R<sub>1</sub> or R<sub>2</sub> is other than H, A<sup>1</sup> must be other than deleted; further provided that, for the formulas (I) through (IID), any asymmetric carbon atom can be R, S or a racemic mixture; and further provided that each R<sub>1</sub> and R<sub>2</sub>, independently, is H, C<sub>1-12</sub> alkyl, C<sub>7-10</sub> phenylalkyl, COE<sub>1</sub> (where E<sub>1</sub> is C<sub>1-20</sub> alkyl, C<sub>3-20</sub> alkenyl, C<sub>3-20</sub> alkinyl, phenyl, naphthyl, or C<sub>7-10</sub> phenylalkyl), or lower acyl, and R<sub>1</sub> and R<sub>2</sub> are bonded to the N-terminal amino acid of said peptide, and further provided that when one of R<sub>1</sub> or R<sub>2</sub> is COE<sub>1</sub>, the other must be H, or a pharmaceutically acceptable salt thereof.

2. The therapeutic peptide of claim 1 wherein

A<sup>0</sup> = Gly, D-Phe, or is deleted;

A<sup>1</sup> = p-Glu, D-Phe, D-Ala, D-β-Nal, D-Cpa, or D-Asn;

A<sup>2</sup> = Gln, His, 1-methyl-His, or 3-methyl-His;

A<sup>4</sup> = Ala;

A<sup>5</sup> = Val;

A<sup>6</sup> = Sar, Gly, D-Phe, or D-Ala;

A<sup>7</sup> = His;

and, where W is (I) and R<sub>3</sub> is CH<sub>2</sub> or CH<sub>2</sub>-CH<sub>2</sub>, Z<sub>1</sub> is the identifying group of Leu or Phe, where W is (I) and R<sub>3</sub> is CHOH-CH<sub>2</sub>, Z<sub>1</sub> is the identifying group of Leu, cyclohexyl-Ala, or Phe and each R<sub>5</sub> and R<sub>6</sub> is H; and where W is (I), V is NHR<sub>6</sub>, and R<sub>6</sub> is NH<sub>2</sub>; where W is (II ), Z<sub>1</sub> is the identifying group of any one of the amino acids Leu or p-X-Phe (where X = H, F, Cl, Br, NO<sub>2</sub>, OH or CH<sub>3</sub>); and each Z<sub>2</sub>, Z<sub>3</sub> and Z<sub>4</sub>, independently, is H, lower alkyl, lower phenylalkyl, or lower naphthylalkyl; and where W is (III), each Z<sub>20</sub> and Z<sub>30</sub>, is H; and each R<sub>1</sub> and R<sub>2</sub>, independently, is H, lower alkyl, or lower acyl.

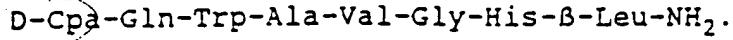
3. The therapeutic peptide of claim 2 of the formula:

D-Phe-Gln-Trp-Ala-Val-Gly-His-Leu-ethylamide.

4. The therapeutic peptide of claim 2 of the formula:

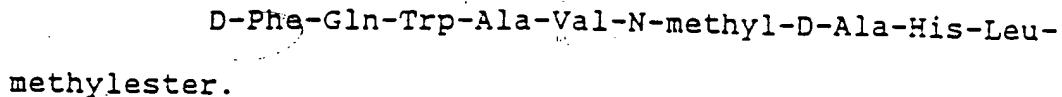
p-Glu-Gln-Trp-Ala-Val-Gly-His-statine-amide. (4)

5. The therapeutic peptide of claim 2 of the formula:



6. The peptide of claim 1 wherein W is (I), V is OR<sub>4</sub>, and R<sub>4</sub> is any of C<sub>1-20</sub> alkyl, C<sub>3-20</sub> alkenyl, C<sub>3-20</sub> alkinyl, phenyl, naphthyl, or C<sub>7-10</sub> phenylalkyl, and A<sup>6</sup> is N-methyl-D-Ala or A<sup>1</sup> is D-F<sub>5</sub>-Phe.

7. The therapeutic peptide of claim 6 of the formula:



8. The therapeutic peptide of claim 2 of the formula:

